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REPORT

CD NO.

50X1-HUM

COUNTRY USSR
 SUBJECT Economic; Technological - Machine tools, automatic transfer machine lines
 HOW PUBLISHED Daily newspapers
 WHERE PUBLISHED USSR
 DATE PUBLISHED 30 Apr - 8 Aug 1952
 LANGUAGE Russian

DATE OF INFORMATION 1952

DATE DIST. 30 Oct 1952

NO. OF PAGES 5

SUPPLEMENT TO REPORT NO.

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SOVIET MACHINE TOOL PLANTS BEHIND SCHEDULE;
 NEW MACHINE TOOLS

CRITICIZE LAGGING MACHINE TOOL PLANTS -- Moscow, Moskovskaya Pravda, 24 Jul 52

The perfection of new types of machines is frequently postponed for long periods beyond target dates set by the government. For example, the Experimental Scientific Research Institute for Metal Cutting Machine Tools and the Moscow Stankokonstruktsiya Plant have delayed completion of the line for machining piston rings for almost 2 years. The Moscow Internal Grinding Machine Plant is far behind its scheduled date for assembling an automatic transfer machine line. The Kolomna Heavy Machine Tool Plant has disrupted its schedule for the production of a vertical boring and turning mill with a 9-meter revolving table. The Moscow Plant imeni Ordzhonikidze rarely meets its schedules.

ANALYZE PLANT'S FINANCIAL FAILINGS -- Moscow, Moskovskaya Pravda, 1 Jul 52

Two types of work are performed at the Moscow Stankokonstruktsiya Plant. One is experimental, which is done by order of the ENIMS (Experimental Scientific Research Institute of Metal Cutting Machine Tools), and the other is purely production, which is done according to the Glavstankoprom (Main Administration of the Machine Tool Building Industry) plans.

The Stankokonstruktsiya Plant is among the best technically equipped enterprises in the capital and in Moskovskaya Oblast. It has facilities for solving complex production and technical problems.

Nonetheless, the plant is not working satisfactorily. There is not even a semblance of rhythm in its work. The machine tools that are released monthly as commodity production are assembled during the last 5 days of the month.

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It is understandable, therefore, that the plant is not outstanding in its economic indexes. During the past 3 months, the plant failed in its production cost plan, and in April, the cost of machine tools produced was 35 percent higher than planned. Taking into consideration the fact that the plant area is always filled with uncompleted parts (the cost of which is more than a million rubles), the reason for its financial failings should be clear.

The financial failings can be seen when figures reflecting plan fulfillment in gross production are compared with indexes of labor productivity and wage expenditures.

In May, for example, gross production was about 90 percent of the plan; the average output per worker was 84.9 percent of the plan, and the expenditure for wages, adjusted to conform to actual production, was 114.2 percent of the plan.

Analyzing the above, the following irregularity should be taken into account: The wage fund was overexpanded by more than 14 percent, and the plant was 10 percent short in its output of products. The question is, what happened to 24 percent of the wage fund?

To find the answer, it is only necessary to turn to production to see what is going on in the shops. It is obvious that the principles of planning are seriously disrupted. This does not mean that there are no plans or schedules. It means that there is no planning or organization of work. For example, the molders do not know ahead of time what they will have to do during their shift. Because the workers frequently do not know the output norm or the possible earnings, the duty roster (especially in the foundry) is made out not at the beginning of the day but at the end. Thus, the actual time consumed is recorded instead of the technically calculated or progressive norm. This is one reason for the low labor productivity and overexpenditure of the wage fund.

The second reason is that large numbers of parts are remade three or four times in machine and assembly shops.

Undoubtedly, in the development of new designs, alterations are unavoidable. For example, if a new part will contribute to the efficiency of the whole machine, the change is worthwhile. However, in the first place, these changes should be provided for in the production plan before the target date for putting out a machine tool is set; in the second place, there must be some end to beneficial alterations.

More dangerous and intolerable is the necessity for redesigning parts that are unsuitable because of carelessness on the part of designers and manufacturers. Arithmetical errors, nonconformity of sizes of mating parts, and nonconformity of diameters of shafts and bearings are frequent "sins" of designers.

Unfortunately, there are "instances of poorly manufactured parts and changes," writes the plants newspaper, "in every machine tool produced by us." This was the case with casting machines, and with Models 1014, 1014A, and 1126 machine tools.

After a machine is put into production, it cannot be assumed that all will go well, without a snag. However, there is little justification for constant changing of a design of one part or another on a machine tool that has been produced several times before. For example, the plant has put out six Model 528 machines. They have been operating at machine-building plants and the consumers have been satisfied. Yet, during the assembly of each new machine of this type, the designers have introduced changes. It would seem that workers at the ENIMS, a leading institute in the field of machine tool building, and A. P. Vladzhiyevskiy, head of the institute and the plant, should be more conscientious about deciding whether a certain design can or cannot be put into production.

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The nature of rejects at the foundry and the reasons for them will not be analyzed now. It can only be said that the basic cause of poor-quality castings is the lack of elementary technological improvements. A technological process has not been worked out in detail; there are no technological cards and no proper checking even in the most important operation of manufacturing molds. The shop is dirty and crowded. It is crowded because at least one third of the molding area has been turned into storage space for core boxes and patterns; another part of it is cluttered with flasks; the cleaning section is heaped with defective parts, core frames, and burnt sand.

Even with the best of plans, an enterprise will still have last-minute speed-ups if the shops are not adequately supplied with technical and technological data.

The shops cannot be expected to meet a specified target date if they receive the drawings for parts 2-3 months late, or even later. The gear-cutting division of the experimental institute should have submitted drawings for a bevel gear-cutting machine, Model 5P23, on 1 March. The complete set has not yet been received. The automatic lathes division was required to supply blueprints for Model 1P365 in February, but they were not received until the end of May. When will subsequent preparations for production be made?

FAILS TO MEET 5-MONTH PLAN -- Vechernyaya Moskva, 27 Jun 52

The Moscow Internal Grinding Machine Plant did not fulfill its production plan for the first 5 months. The enterprise failed to produce a considerable quantity of different machine tools and increased its cost of production.

BOAST NEW AUTOMATIC LINES -- Minsk, Sovetskaya Belorussiya, 20 Jun 52

Moscow machine tool builders have completed the assembly of the second line of the automatic plant for the production of automobile pistons. All processes are fully mechanized. Adjustment of the operation of the automatic plant is now being conducted.

The Moscow Plant imeni Ordzhonikidze and the Moscow Internal Grinding Machine Plant have finished assembling the equipment for the automatic shop in which tractor piston pins will be processed. This shop is equipped with high-duty machine tools, which had made it possible to decrease the production area 7.5 times and the number of workers 15 times.

In 1952, machine builders will receive another automatic shop where piston rings will be produced.

Soviet machine tool builders are working industriously on the development of a series of automatic transfer machine lines for a number of branches of industry. Among these is an automatic line for the production of plowshares and moldboards for plows. The designing of a powerful automatic line for the production of bolts and nuts is being completed.

In 1952, the Moscow Krasnyy Proletariy Plant has put out a unique automatic line on which 7-meter frames for reinforced-concrete columns can be manufactured. The plant is now developing several such lines for construction materials enterprises.

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BUILD AUTOMATIC TRANSFER MACHINE LINES FOR MACHINING ENGINE BLOCKS -- Moscow, Moskovskaya Pravda, 30 Apr 52

The Moscow Machine Tool Plant imeni Ordzhonikidze has manufactured two automatic transfer machine lines for machining cylinder blocks and cylinder heads. Both lines can be attended by two men in the time that it would take 35 workers to attend separate combination machine tools per shift.

PRAISE WORK ACCOMPLISHED AT MACHINE TOOL PLANT -- Moscow, Moskovskaya Pravda, 5 Jul 52

Production of two multitool vertical semiautomatics which will increase the labor productivity of lathe operators three to five times has been mastered at the Moscow Machine Tool Plant imeni Sergo Ordzhonikidze.

An automatic transfer machine line for machining cylinder heads of tractor motors has been developed. This will release at least 40 highly skilled production workers. A new design of a multispindle automatic and a number of other machine tools for manufacturing complex parts have also been developed.

Because of the wide introduction of advanced methods into production, the plant exceeded its 6-month plan.

TAKE STEPS TO IMPROVE TECHNICAL, ECONOMIC INDEXES -- Moscow Moskovskaya Pravda, 14 Jun 52

The Moscow Machine Tool Building Plant imeni S. Ordzhonikidze lagged for a long time. Now it is considered one of the leading enterprises in the capital.

At the beginning of 1952, a far-reaching plan of organizational and technical measures was worked out, directed toward more rapid perfection of new types of machine tools, an increase in labor productivity, a saving of metal, the mechanization of labor-consuming processes, the lowering of production costs, and improvement in the quality of products.

Shop No 40, for example, converted to high-speed painting of machine tools. The heat-treatment shop began using checking and measuring apparatus. The system of delivering parts from preparatory sections to machine shops was put in order. Intraplant transport of parts was mechanized.

Beginning in January, the plant started to fulfill its plan and to improve all technical and economic indexes.

DEVELOP NEW MACHINE TOOLS FOR BEARING INDUSTRY -- Moscow, Vechernyaya Moskva, 8 Aug 52

Aleksandr Ivanovich Korolev, leading designer at the Moscow Machine Tool Plant imeni Sergo Ordzhonikidze, has done a great deal of work during the past few years on the development of semiautomatic lathes for machining ball-bearing races. The first models of multitool semiautomatics had many design deficiencies.

With the help of engineers of the bearing industry; as well as I. Rostovtsev, chief designer at the machine tool plant; P. Andreyev, his deputy; and M. Berman, chief engineer at the plant, the goal was finally attained. These semiautomatics are now operating exceptionally well at bearing plants throughout the country.

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Having completed this important assignment, Korolev began to work on the development of a semiautomatic machine for high-speed machining of large-diameter bearing races. He was faced with the problem of designing a machine which would occupy a small amount of floor space and at the same time would be suitable for machining parts at high speeds. In addition, the new machine would need controls which even a nonskilled worker could operate.

This problem was also successfully solved. The first welding shop at the plant, directed by M. Volovik, a Stalin Prize winner, has manufactured two semiautomatic machines for processing large-diameter bearing races. Each new machine occupies $\frac{1}{2}$ times less floor space than an ordinary machine. Each machine is equipped with three tool slides.

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